

UTAH CHAPTER



Message from the President

Dear Chapter Members and Potential Members,

What a whirlwind of a year this has been for the Utah Chapter of ARCS! Orientation and information sessions were presented to us by National Board members Judith Miller, Vicki Griffin and Darla Mueller during February-April, 2009. Interested women were recruited, leaders for the chapter began to emerge, our kick-off event was held on June 30, 2009, and we received our charter on October 3, 2009. Achieving all of this in such a short period of time would not have been possible without the support and help of many people. A special thanks goes to College of Engineering Dean Richard Brown and his associates

Marilyn Davies and Sarah Bagdoian who hosted the orientation sessions and prepared the documents on the degree programs to be reviewed by the ARCS National Board. Pro bono assistance with our legal documents was provided by the law firm of Parsons Behle & Latimer. And our very dedicated Board members spent many hours reviewing the aforementioned materials and documents and assisted in the planning of the special events described in more detail in this first issue of our newsletter.

The Utah ARCS Chapter currently consists of 36 members, including four honorary members. Our chapter officers and board members are:

President Cecelia (Cece) H. Foxley, former Utah Commissioner of Higher Education

VP, Finance/Treasurer Sue Dintelman, CEO of Pleiades Software Development

VP, Membership
VP, Programs/Events
Ruth Novak, former VP & General Manager of Hercules Utah (now ATK)
Robin Rankin Marrouche, Executive Director of the Kimball Art Center

VP, Fund Development Tricia McGarry Blocker, involved in management & ownership of technology, marketing &

venture-backed businesses

VP, Communications/ Anne Erickson, former Academic VP of Salt Lake Community College

Secretary

Member-at-Large Klancy DeNevers, former software engineer, automation manager, scientific programmer & author

Member-at-Large Margaret Niver McGann, attorney with Parsons Behle & Latimer Law Firm

Member-at-Large Lois Milner, community volunteer & philanthropist

There are challenges building a new organization like our ARCS Chapter during this time of economic uncertainty. Our annual dues are \$600, which includes \$100 for chapter support and \$500 for scholar awards. (The scholar awards contributions are tax deductible.) We are still working towards our goal of 50-60 members. Another goal we have is to seek the support of individuals, foundations and corporations to provide funds for named scholar awards at \$15,000 per award per year. We will continue to work toward these goals with enthusiasm and commitment because we firmly believe in order for our country to remain competitive, we must educate and train more U.S. citizens in the areas of science, engineering and medical research. We invite you to join us in reaching these goals!

Sincerely,

Cece

ARCS Utah Chapter Events

June 30, 2009—Our Chapter held a kick-off event at the University of Utah President's residence. More than 50 people attended this event to learn about ARCS. Speakers included President Michael Young, Engineering Dean Richard Brown, ARCS National Board representative Judith Miller, Chapter President Cecelia Foxley, and Dr. Siam Oottamasathien, a former ARCS Scholar at the University of Colorado and currently Assistant Professor of Pediatric Urology and Director of Pediatric Urology Basic Science Research at the University of Utah. Dr. Oottamasathien is involved in cutting edge research in bladder development and the use of human and synthetic cells as a potential tissue delivery source for bladder augmentation procedures. In his remarks, he expressed



his appreciation of his ARCS scholar award: "ARCS was truly significant to me because it was a strong catalyst for pursuing my basis science interests. The money and recognition was a tremendous stepping-stone. I am committed to basic science research as part of my future." ARCS National Board VP for New Chapter Development, Sharon Hewitt and her husband, Henry, from Portland, Oregon also attended the kickoff event. Those in attendance expressed a great deal of enthusiasm and support for the goals and objectives of ARCS.

<u>September 12, 2009</u>—Peter G. Wilhelm, Director of the Naval Center for Space Technology in Washington, D.C., was the University of Utah's 2009 Gould Distinguished Lecturer. His topic was "Sputnik's Connection to GPS; Spacecraft Developments at the Naval Research Laboratory." Director Wilhelm's presentation was particularly relevant to ARCS since the ARCS National Foundation was founded during the Sputnik era in recognition of America's need to educate and train more U.S. citizens in science and technology. The program was open to the public, and a contingent from the ARCS Utah Chapter attended, followed by a private luncheon for members and potential members.

<u>December 3, 2009</u>—ARCS members were introduced to the University of Utah's Scientific Computing and Imaging Institute (SCI). The SCI Institute has established itself as an internationally recognized leader in visualization, scientific computing, and image analysis. A core focus of the Institute has been biomedicine, but SCI Institute researchers also solve challenging computational and imaging problems in such disciplines as geophysics, combustion, molecular dynamics, fluid dynamics, and atmospheric dispersion. Speakers were SCI Institute's Founding Director Chris Johnson (who by the way was also a guest presenter at the National ARCS 50th Anniversary Celebration), Associate Director Rob



MacLeod, and two Ph.D. students. The approximately 45 individuals who attended the event observed dynamic presentations on exciting new areas of research involving the brain, the heart and other parts of the human body. In addition, our first named ARCS Scholar Award was announced. Philanthropist and honorary ARCS member Beverley Sorenson provided funds for an ARCS Scholar Award in honor of her son, James Lee Sorenson.

<u>February 22, 2010</u>—Approximately 65 ARCS members and special guests enjoyed a reception, program and tour of the Warnock Collection of Native American Art & Artifacts at the Utah Museum of Fine Arts. After making remarks about his experience as an undergraduate and graduate student at the U of U, John E. Warnock commended the College of Engineering for preparing him for his career and that of many others who have gone on to make history with their innovations and research. As co-founder of Adobe Systems and developer of PostScript and Portable Document Format(PDF), Dr. Warnock



was presented the National Medal for Technology and Innovation by President Barack Obama in September, 2009. Dr. John Warnock and his wife Marva, assisted by Museum Director Gretchen Dietrich, then led us on a most interesting tour of their one-of-a-kind collection of historic Native American art and artifacts. Marva has since become a member of our ARCS Utah Chapter.

June 24, 2010—At an informal non-scientific event, Chapter members and guests enjoyed a private tour of the contemporary quilt show, "Don't Fence Me In," at the Kimball Art Center in Park City, Utah. The event was hosted by ARCS VP of Programs/Events Robin Rankin Marrouche, who is also the Executive Director of the Kimball Art Center, and members of her staff. Following the tour, we were welcomed by ARCS Chapter member Joan Jacobson to her lovely, nearby home for refreshments and discussion of ARCS.









September 8, 2010 – Again, ARCS members attended the University of Utah's annual Gould Distinguished

Lecture on Technology and the Quality of Life. This year's distinguished lecture was Dr. Yoky Matsuoka, a faculty member and roboticist at the University of Washington-Seattle. The title of her presentation was "Neurobotics: Human-Robot Interfaces, Restoring the Quality of Life through Engineering." A UC-Berkeley, MIT and Harvard trained engineer, Dr. Matsuoka shared with the audience her exciting, collaborative research. Following the presentation, ARCS members enjoyed lunch and discussion regarding future events. It is likely that the Gould Lecture will become one of our annual fall events



Other Items of Special Interest

ARCS Utah Chapter Receives Charter

After less than a year to get organized, complete the necessary requirements to become a 501(c)(3) organization, and submit detailed information on the quality of the departments in the University of Utah College of Education to the ARCS National Board for approval, the ARCS Utah Chapter was presented its charter at the Board meeting in Denver, Colorado on October 3, 2009. All of this was done in record time and with exemplary quality thanks to great assistance provided by Dean Brown and his staff, and legal advisors in the law firm of Parsons Behle and Latimer. National



President Mary Snitch, accompanied by Judith Miller and Sharon Hewitt, presented the charter to Utah Chapter President Cece Foxley. Utah became the 15th chapter of ARCS. Minnesota became the 16th chapter, also in 2009. Tampa Bay Chapter received its charter in 2010, making a total of 17 ARCS chapters throughout the United States.

College of Engineering Honors Judith Miller and Cece Foxley

At the May 7, 2010 College of Engineering Convocation, Dean Richard Brown presented Outstanding Service Awards to Judith Miller and Cece Foxley for their volunteer efforts in helping to establish the ARCS Utah Chapter. In his remarks, Dean Brown said, "The inspiration for the Utah Chapter came from Judith Miller who spent nearly two years laying the groundwork at the University of Utah. A long time friend of the university, Judith is the past National Board President of ARCS and has helped establish chapters across the US.... We are also pleased to honor Dr. Cecelia Foxley who is serving as the first Utah ARCS Chapter



President. As the former Commissioner of Higher Education, Cece brings in-depth knowledge, understanding and commitment to the higher education process. She also brings her passion as the mother of a successful chemical engineering graduate from the University of Utah.... Judith and Cece, on behalf of future generations of students, we thank you for your lifelong commitment to supporting our nation's future engineering leaders."

Utah Chapter Members Attend ARCS National Annual Meeting

The ARCS Foundation's National Annual Meeting for 2010 was held June 1-5 in Washington, D.C. Anne Erickson, Ruth Novak and Cece Foxley represented the Utah Chapter at the meeting, which in addition to the regular business meeting of the National Board included speakers and panel discussions on such topics as climate change and the future of NASA. Congressional visits and receptions at the Netherlands Ambassador's



Residence and the U.S. Supreme Court, with Justice Anthony Kennedy and his wife Mary (a member of ARCS Metropolitan Washington Chapter) as our hosts were also highlights of the Annual Meeting. In addition, side tours to the Smithsonian Museum of Natural History and the Hillwood Museum and Gardens were also provided.

The 2011 National Annual Meeting will be held on June 1-4, 2011 in Amelia Island, Florida. All active members of the 17 ARCS Chapters across the nation are welcome to attend.

First Scholar Awards Luncheon



On Tuesday, October 5, 2010 the ARCS Utah Chapter will hold its very first Scholar Awards Luncheon in the University of Utah Warnock Engineering Building. Scholar Awards will be presented to Shannon Hanson, Nicholas Nolta and Joshua Sewell. See the brief profiles for each of these outstanding students. It is clear that they represent the "best and brightest" of Ph.D. students in the U of U College of Engineering. The guest speaker for this special event is Dr. Paul LaStayo, Associate Professor in the U of U Department of Physical Therapy and Director

of the Skeletal Muscle Exercise Research Facility (SMERF). Dr. LaStayo was an ARCS Scholar in Arizona and attributes his ARCS support as the critical component that helped initiate his work involving the enhancement of muscle function in elderly populations.



ARCS Scholar: Shannon Hanson
Faculty Advisor: Paul Tikalsky, Department Chair
Department: Civil & Environmental Engineering

A native of Utah, Shannon Hanson is an outstanding continuing student at the University of Utah. Shannon completed the BS/MS program as one of the top students in the Civil and Environmental Engineering Dept. She completed a semester of study at Budapest University of Technology and Economics, was a Presidential Scholar, and was named an ACI (American Concrete Institute) Intermountain Chapter Scholar in 2007. As an undergraduate, Shannon worked on a concrete research project to bring ternary blends to specifications on 10 states. She had a refereed

conference paper accepted for an ACI co-sponsored international conference in Ultra High Performance Concrete in Kassel, Germany. The paper addressed the CO2 signature of concrete mixture designs and the technical performance of these mixtures.

Shannon is an exemplary student and model for others. While she is widely considered one of the best students in the department, she is also engaged in most of the student activities and captained the U of U concrete canoe team. Shannon has developed a genuine interest in concrete materials and structures and she is developing sustainable concrete elements that the U of U can use for campus building projects.



ARCS Scholar: Nicholas Nolta Faculty Advisor: Patrick Tresco, Associate Dean for Research Department: Bioengineering

Nicholas is joining the University of Utah from the University of California San Diego where he completed a BS in Bioengineering. He chose the U based on its reputation in advanced neural interfaces. Nicholas's goal is to become a top-notch researcher in brain-computer interface technology. He believes that one day, rich, direct communication between the brain, computers and other brains will revolutionize our understanding of the human mind and open up entirely new realms of human interaction. Nicholas's background includes a strong foundation in

science and mathematics, programming and computer modeling, biotechnology, biomechanics and electrical engineering.

At UCSD, Nicholas received the Gordon Engineering Leadership Award that is given to only three undergraduates. Nicholas worked as an SAT test-prep instructor for The Princeton Review to help improve his teaching abilities. He also completed a research internship on vascular dysfunction where the primary objective was to explore the role of the protein STIM1 in vascular dysfunction in diabetes. Nick also has great interest in writing, and after just a few short weeks on the U of U campus, he has brought together a group of fellow engineering students with similar creative interests. Their efforts will eventually result in a new student publication.



ARCS Scholar: Joshua Sewell Faculty Advisor: John McClennan, USTAR Associate Professor Department: Chemical Engineering

Josh completed a BS in Chemistry at Brigham Young University-Idaho where he received numerous scholarships and awards. In addition to maintaining a record of high academic achievement, he owns and runs a business at multiple farmers' markets in South Eastern Idaho. As an undergraduate, Josh tutored quantitative and instrumental analysis chemistry and was a grader for Engineering Math and Calculus. Josh impressed faculty members with his motivation and initiative in pursuing independent research, his work ethic in balancing school, family and

business, and his effectiveness in teaching others. Josh was especially patient with students who were struggling with difficult concepts. In addition to an extraordinary academic record, Josh was recommended by his faculty members as someone who is responsible, talented, determined, capable and kind.

As a graduate student working with Dr. McClennan, Josh will be part of a large interdisciplinary team working on problems related to energy recovery and usage, particularly unconventional gas. Josh's summer internship at the U of U had him working on microbial generation of methane gas from coal.

Josh and his wife Sara, who is a cosmetologist, have a 16 month old baby girl, Oakley Rae.

Mission Statement

The ARCS Foundation advances science and technology in the United States by providing financial awards to academically outstanding U.S. citizens studying to complete degrees in science, engineering and medical research.

Utah ARCS Board

2009-2010

President: Cecelia (Cece) H. Foxley

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VP Finance/: Su

Sue Dintelman

Treasurer

VP Membership: Ruth Novak

VP Programs/: Robin Rankin Marrouche

Events

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